Online Supplementary Content (eAppendix)

Prevalence of cannabis use among medical students: a systematic review and meta-analysis

1. Prevalence of lifetime cannabis use

eTable 1: Subgroup analysis for continents

Group	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2 (df)	p-value
Africa	1	200	10.5	6.59	15.16	---	60.78 (4)	**<0.001**
Asia	3	2860	6	1.77	12.44	95.5		
CS America	4	1911	21.96	16.26	28.25	87.9		
Europe	10	6434	31.4	22.06	41.57	98.5		
USA	10	4656	48.05	36.72	59.48	98.4		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 2: Subgroup analysis for publication year, including all studies

Group	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2_{df}	p-value
≤ 2000	15	8473	34.04	22.44	46.70	99.3	0.48 (1)	0.4871
> 2000	13	7588	28.41	18.89	39.02	98.9		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 3: Subgroup analysis for sample size, including all studies

Group	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2_{df}	p-value
> 400	15	13380	30.50	20.26	41.82	99.5	0.06 (1)	0.8043
≤ 400	13	2681	32.48	21.09	45.02	97.8		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 4: Subgroup analysis for studies from Europe

	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2_{df}	p-value
Publication year								
≤ 2000	7	5131	26.13	15.87	37.91	98.6	4.14 (1)	0.0419
> 2000	3	1303	44.25	31.31	57.59	94.7		
Sample size								
> 400	6	5808	25.03	14.71	37.01	98.9	3.23 (1)	0.0722
≤ 400	4	626	42.15	27.70	57.32	93.2		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 5: Subgroup analysis for studies from the USA

	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2_{df}	p-value
Publication year								
≤ 2000	7	3127	49.68	33.68	65.71	98.7	0.27 (1)	0.6032
> 2000	3	1529	44.24	32.08	56.76	95.4		
Sample size								
≤ 400	5	1248	41.76	23.14	61.69	98.0	1.06 (1)	0.3035
> 400	5	3408	54.29	41.29	66.99	98.3		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 6: Subgroup analysis from studies from C&S America

	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2_{df}	p-value
Publication year								
≤ 2000	--	--	--	--	--	--	--	--
> 2000	4	1911	21.96	16.26	28.25	87.9		
Sample size								
≤ 400	2	392	27.61	21.25	34.45	54.7	4.76 (1)	0.0292
> 400	2	1519	17.58	11.89	24.10	88.5		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 7: Subgroup analysis from studies from Africa

	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2_{df}	p-value
Publication year								
≤ 2000	---	---	---	---	---	---	---	---
> 2000	1	200	10.5	6.97	15.52	---		
Sample size								
≤ 400	1	200	10.5	6.97	15.52	---	---	---
> 400	---	---	---	---	---	---		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within

group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 8: Subgroup analysis for studies from Asia

	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2_{df}	p-value
Publication year								
≤ 2000	1	215	0.93	0.01	2.78	---	10.05 (1)	**0.0015**
> 2000	2	2645	9.52	4.09	16.87	95.1		
Sample size								
≤ 400	1	215	0.93	0.01	2.78	---	10.05 (1)	**0.0015**
> 400	2	2645	9.52	4.09	16.87	95.1		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

2. Prevalence of past year cannabis use

eTable 9: Subgroup analysis for continents

Group	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2 (df)	p-value
Africa	---	---	---	---	---	---	273.47 (3)	**<0.001**
Asia	1	173	5.78	2.72	9.82	---		
CS America	6	1905	10.76	6.04	16.62	92.8		
Europe	1	171	76.61	69.95	82.67	---		
USA	7	2892	18.32	11.48	26.32	96.2		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 10: Subgroup analysis for publication year, including all studies

Group	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2_{df}	p-value
≤ 2000	5	1606	18.12	8.78	29.85	96.6	0.04 (1)	0.8426
> 2000	10	3535	16.69	8.52	26.90	98.2		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 11: Subgroup analysis for sample size, including all studies

Group	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2_{df}	p-value
≤ 400	10	2345	17.22	8.18	28.67	97.8	0.00 (1)	0.9768
> 400	5	2796	17.09	8.41	28.04	98.0		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 12: Subgroup analysis for studies from Europe

	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2_{df}	p-value
Publication year								
≤ 2000	---	---	---	---	---	---	---	---
> 2000	1	171	76.61	69.95	82.67	---		
Sample size								
≤ 400	1	171	76.61	69.95	82.67	---	---	---
> 400	---	---	---	---	---	---		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 13: Subgroup analysis for studies from the USA

	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2_{df}	p-value
Publication year								
≤ 2000	5	1606	18.12	8.78	29.85	96.6	0.01 (1)	94.24
> 2000	2	1286	18.82	7.30	34.10	97.3		
Sample size								
≤ 400	4	1017	14.96	7.62	24.18	92.7	1.31 (1)	0.2519
> 400	3	1875	22.94	13.20	34.42	96.7		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 14: Subgroup analysis for studies from C&S America

	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2_{df}	p-value
Publication year								
≤ 2000	--	--	--	--	--	--	--	--
> 2000	6	1905	10.76	6.04	16.62	92.8		
Sample size								
≤ 400	4	984	11.37	5.77	18.50	90.0	0.07 (1)	0.7981
> 400	2	921	9.66	1.32	24.25	97.3		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 15: Subgroup analysis for studies from Africa

	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2_{df}	p-value
Publication year								
≤ 2000	---	---	---	---	---	---	---	---
> 2000	---	---	---	---	---	---		
Sample size								
≤ 400	---	---	---	---	---	---	---	---
> 400	---	---	---	---	---	---		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within

group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 16: Subgroup analysis for studies from Asia

	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2_{df}	p-value
Publication year								
≤ 2000	---	---	---	---	---	---	---	---
> 2000	1	173	5.78	2.72	9.82	---		
Sample size								
≤ 400	1	173	5.78	2.72	9.82	---	---	---
> 400	---	---	---	---	---	---		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

3. Prevalence of past month cannabis use

eTable 17: Subgroup analysis for continents

Group	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2 (df)	p-value
Africa	2	928	3.67	2.11	5.61	36.5	24.13 (4)	**<0.001**
Asia	2	2350	0.59	0.00	2.80	84.1		
CS America	5	2162	7.51	3.66	12.53	92.5		
Europe	6	2782	13.39	6.54	22.17	97.1		
USA	10	5442	10.61	5.13	17.74	98.3		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 18: Subgroup analysis for publication year, including all studies

Group	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2_{df}	p-value
≤ 2000	12	6437	9.23	4.28	15.79	98.4	0.07 (1)	0.79
> 2000	13	7227	8.26	4.88	12.42	96.8		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 19: Subgroup analysis for sample size, including all studies

Group	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2_{df}	p-value
≤ 400	12	2721	7.97	3.76	13.53	95.5	0.15 (1)	0.7012
> 400	13	10943	9.48	5.12	14.98	98.7		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 20: Subgroup analysis for studies from Europe

	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2_{df}	p-value
Publication year								
≤ 2000	4	2501	7.98	3.56	13.91	95.5	15.77 (1)	**<0.001**
> 2000	2	281	28.46	20.04	37.69	62.7		
Sample size								
≤ 400	3	475	24.94	17.02	33.80	77.8	19.58 (1)	**<0.001**
> 400	3	2307	5.50	2.34	9.87	93.9		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 21: Subgroup analysis for studies from USA

	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2_{df}	p-value
Publication year								
≤ 2000	6	2993	14.44	6.26	25.23	98.1	2.88 (1)	0.0897
> 2000	4	2449	5.93	2.25	11.18	95.3		
Sample size								
≤ 400	4	1179	4.73	1.53	9.48	90.4	5.19 (1)	0.0227
> 400	6	4263	15.48	7.50	25.65	98.6		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 22: Subgroup analysis for studies from C&S America

	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2_{df}	p-value
Publication year								
≤ 2000	---	----	---	---	---	---	---	---
> 2000	5	2162	7.51	3.66	12.53	92.5		
Sample size								
≤ 400	3	652	6.09	1.67	12.85	88.9	0.42 (1)	0.5149
> 400	2	1510	9.69	2.56	20.65	96.8		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 23: Subgroup analysis for studies from Africa

	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2_{df}	p-value
Publication year								
≤ 2000	1	728	3.16	2	4.57	---	1.57 (1)	0.2097
> 2000	1	200	5	2.35	8.51	---		
Sample size								
≤ 400	1	200	5	2.35	8.51	---	1.57 (1)	0.2097
> 400	1	728	3.16	2	4.57	---		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within

group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 24: Subgroup analysis for studies from Asia

	k	N	Prevalence (%)	LB (%)	HB (%)	I^2 (%)	χ^2_{df}	p-value
Publication year								
≤ 2000	1	215	0.00	0.00	0.8	---	6.29 (1)	0.0122
> 2000	1	2135	1.5	1.02	2.06	---		
Sample size								
≤ 400	1	215	0.00	0.00	0.8	---	6.29 (1)	0.0122
> 400	1	2135	1.5	1.02	2.06	---		

k = number of studies, N= number of participants, prevalence: point estimate, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the prevalence, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

4. Relative risk for gender

eTable 25: Subgroup analysis for continents

Group	k	N	RR	LB	HB	I^2 (%)	χ^2 (df)	p-value
Africa	1	728	4.39	0.60	32.23	---	40.29 (4)	**<0.001**
Asia	2	2818	5.11	3.13	8.32	0.0		
CS America	5	2232	1.99	1.37	2.91	72.9		
Europe	9	5684	1.32	1.18	1.48	41.5		
USA	1	860	1.13	0.98	1.30	---		

k = number of studies, N= number of participants, RR: point estimate of the relative risk, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the relative risk, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 26: Subgroup analysis for publication year, including all

Group	k	N	RR	LB	HB	I^2 (%)	χ^2_{df}	p-value
≤ 2000	7	5109	1.34	1.15	1.57	38.8	3.87 (1)	0.0492
> 2000	11	7213	1.81	1.41	2.34	85.9		

k = number of studies, N= number of participants, RR: point estimate of the relative risk, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the relative risk, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 27: Subgroup analysis for sample size, including all studies

Group	k	N	RR	LB	HB	I^2 (%)	χ^2_{df}	p-value
≤ 400	7	1769	1.46	1.01	2.13	81.3	0.15 (1)	0.6986
> 400	11	10553	1.59	1.33	1.90	78.3		

k = number of studies, N= number of participants, RR: point estimate of the relative risk, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the relative risk, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 28: Subgroup analysis for studies from Europe

	k	N	RR	LB	HB	I^2 (%)	χ^2_{df}	p-value
Publication year								
≤ 2000	6	4381	1.34	1.15	1.56	41.1	0.1 (1)	0.7481
> 2000	3	1303	1.28	1.03	1.59	58.4		
Sample size								
≤ 400	4	625	1.08	0.90	1.30	0.0	7.79 (1)	**0.0053**
> 400	5	5059	1.45	1.32	1.58	0.0		

k = number of studies, N= number of participants, RR: point estimate of the relative risk, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the relative risk, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 29: Subgroup analysis for studies from the USA

	k	N	RR	LB	HB	I^2 (%)	χ^2_{df}	p-value
Publication year								
≤ 2000	---	---	---	---	---	---	---	---
> 2000	1	860	1.13	0.98	1.30	---		
Sample size								
≤ 400	---	---	---	---	---	---	---	---
> 400	1	860	1.13	0.98	1.30	---		

k = number of studies, N= number of participants, RR: point estimate of the relative risk, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the relative risk, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 30: Subgroup analysis for studies from C&S America

	k	N	RR	LB	HB	I^2 (%)	χ^2_{df}	p-value
Publication year								
≤ 2000	---	---	---	---	---	---	---	---
> 2000	5	2232	1.99	1.37	2.91	72.9		
Sample size								
≤ 400	3	971	2.44	1.23	4.83	80.7	1.71 (1)	0.1909
> 400	2	1261	1.51	1.22	1.88	0.0		

k = number of studies, N= number of participants, RR: point estimate of the relative risk, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the relative risk, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 31: Subgroup analysis for studies from Africa

	k	N	RR	LB	HB	I^2 (%)	χ^2_{df}	p-value
Publication year								
≤ 2000	1	728	4.39	0.60	32.23	---	---	---
> 2000	---	---	---	---	---	---		
Sample size								
≤ 400	---	---	---	---	---	---	---	---
> 400	1	728	4.39	0.60	32.23	---		

k = number of studies, N= number of participants, RR: point estimate of the relative risk, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the relative risk, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic

eTable 32: Subgroup analysis for studies from Asia

	k	N	RR	LB	HB	I^2 (%)	χ^2_{df}	p-value
Publication year								
≤ 2000	---	---	---	---	---	---	---	---

> 2000	2	2645	5.11	3.13	8.32	0.0		
Sample size								
≤ 400	---	---	---	---	---	---	---	---
> 400	2	2645	5.11	3.13	8.32	0.0		

k = number of studies, N= number of participants, RR: point estimate of the relative risk, LB and HB = the lower and higher boundaries of the 95% confidence intervals of the relative risk, I^2 = I-squared statistic for within group heterogeneity, χ^2_{df} = chi-squared statistic with df degrees of freedom for between groups heterogeneity, p-value = the p value of the chi-squared statistic